

#### REMARKS

Claims 1, 2, 4, 5, and 7 in the above-identified application are pending while claims 3 and 6 have been withdrawn. With this supplemental response, new claim 7 was added. Applicant maintains that no new matter has been added with this amendment.

Applicant would like to thank Examiner Heinz for his courteous and helpful interview held with Applicant's representative on August 25, 2003. During the interview, the differences between the present invention and the prior art were discussed.

Applicant's propose the addition of new claim 7 which requires that the magnetic tunnel junction element include a free layer on a fixed layer, and that a width of the free layer is equal to or less than a width of the fixed layer. This amendment is fully supported in the specification at page 16, lines 15-19 and in the drawings at FIG. 6.

Redon et al. describes a magneto-resistive tunnel junction head (hereinafter simply referred to as "TMR head") having a tunnel multilayered film 3 which exhibits a magneto-resistive spin tunnel effect. (See Redon et al., col. 4, lines 28-40) Specifically, the tunnel multilayered film 3 has a laminate structure composed of a tunnel barrier layer 30, a ferromagnetic free layer 20 formed on one surface of the tunnel barrier layer 30, and a ferromagnetic pinned layer 40 formed on the other surface of the tunnel barrier layer 30 so that the tunnel barrier layer 30 is held between the layers 20 and 40. (See Redon et al., col. 4, lines 40-45) A length  $L_f$  in the longitudinal direction (substantially the same as the bias magnetic field applying direction) of the ferromagnetic free layer 20 is set to be *greater than* a longitudinal length  $L_p$  of the ferromagnetic pinned layer 40. (See Redon et al., col. 6, lines 20-24)

Applicant's claim 7 requires that a width of the free layer is *equal to or less than* a width of the fixed layer. However, Redon et al. does not teach or disclose a magnetic head wherein a width of the free layer is *equal to or less than* a width of the fixed layer. In fact, Redon et al. requires that the width, or the length  $L_f$  in the longitudinal direction, of the ferromagnetic free layer 20 is *greater than* the width, or the longitudinal length  $L_p$ , of the ferromagnetic pinned

layer 40. Accordingly, Applicant submits that new claim 7 of claim invention would neither be anticipated by nor obvious over Redon et al.

In view of the remarks set forth above, Applicant respectfully submits that the present invention is in condition for allowance. Early notification to such effect is earnestly solicited. Should the Examiner have any remaining issue, Applicant kindly requests that the Examiner contact the undersigned.

Respectfully submitted,

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